

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-18 (canceled).

Claim 19 (new): Method for the production of fiber composites, wherein staple fibers that are soaked with hardenable thermosetting synthetic resin and cut to length are laid in a three-dimensional random layer and thus are bound together.

Claim 20 (new): Method according to claim 19, wherein the staple fibers have a length of 0.5 to 20 cm.

Claim 21 (new): Method according to claim 19, wherein the staple fibers comprise glass fibers.

Claim 22 (new): Method according to claim 19, wherein the staple fibers comprise plastic.

Claim 23 (new): Method according to claim 19, wherein the staple fibers comprise carbon fibers.

Claim 24 (new): Method according to claim 19, wherein before or during the laying of the staple fibers, said staple fibers have hollow thermoplastic microspheres embedded therebetween.

Claim 25 (new): Method according to claim 24 wherein the hollow thermoplastic microspheres contain an inflating gas, and wherein the hollow thermoplastic microspheres are expanded by heating the inflating gas.

Claim 26 (new): Method according to claim 19, wherein the cut staple fibers are wetted with a hardenable synthetic resin selected from the group consisting of unsaturated polyester, epoxy resin, polyurethane resin, vinyl ester resin and phenolic resin in an amount sufficient to saturate the staple fibers, wherein cavities between the three-dimensionally arranged staple fibers remain open.

Claim 27 (new): Method according to claim 19, wherein the three-dimensional random layer is provided on at least one side with a smooth, homogeneous, two-dimensional layer of non-volumized fibers.

Claim 28 (new): Method according to claim 19, wherein the three-dimensional random layer is at least partially compressed to a homogeneous composite layer that is free of bubbles.

Claim 29 (new): Fiber composite consisting of a matrix of hardened thermoplastic synthetic resin and staple fibers embedded therebetween in a random three-dimensional arrangement.

Claim 30 (new): Fiber composite according to claim 29, wherein the matrix includes cavities that are gas-permeable liquid-permeable or both.

Claim 31 (new): Fiber composite according to claim 29, wherein the matrix contains cut staple fibers having a length of 0.5 to 20 cm.

Claim 32 (new): Fiber composite according to claim 31, wherein the staple fibers are selected from the group consisting of glass fibers and carbon fibers.

Claim 33 (new): Fiber composite according to claim 29, wherein the cut staple fibers are volumized by embedding hollow thermoplastic microspheres therebetween.

Claim 34 (new): Method according to claim 33 wherein the hollow thermoplastic microspheres contain an inflating gas and wherein the hollow thermoplastic microspheres are expanded by heating the inflating gas.

Claim 35 (new): Fiber composite according to claim 29, wherein the three-dimensionally arranged staple fibers are wetted with a hardenable synthetic resin selected from the group consisting of unsaturated polyester, epoxy resin, polyurethane resin, vinyl ester resin, and phenolic resin, in an amount sufficient to saturate the absorbent staple fiber bundles, wherein cavities between the three-dimensionally arranged staple fibers remain open.

Claim 36 (new): Fiber composite according to claim 29, wherein the cut staple fibers are arranged in the shape of a sandwich structure, wherein a core layer resides between a first cover layer and a second cover layer, wherein the core comprises a three-dimensionally arranged random layer of volumized staple fibers and the first and second cover layers each comprise a smooth, homogeneous, two-dimensionally arranged layer of non-volumized fibers.

Claim 38 (new): Fiber composite according to claim 29, wherein a portion of the cut staple fibers, are compressed to a homogeneous composite layer free of air bubbles, and a portion of the cut staple fibers, not processed with pressure, remain randomly arranged in a three-dimensional random layer.

Claim 39 (new): Construction component comprising a fiber composite according to claim 29, wherein the construction component is selected from the group consisting of a fender, a bumper, a spoiler, an air deflector, a motor cover for electric motors, a deck hatch, a flap gate, a floor tile, a panel, or a children's toy.